Rescue Excavations of a Prehistoric Settlement and Viking Age/Medieval Cemetery at John O'Groats 1989

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with contributions from W. Finlayson, A. MacSween, P. Robertson and A. Young

SUMMARY

Emergency excavations in the village of John O'Groats (ND379 732) revealed a shallow but complex sequence of deposits adjacent to a field known to have produced both human remains and a flint axe (NMR site ND35NE6). Remains of a prehistoric settlement were found, which had been substantially disturbed by two separate episodes of burial. Radiocarbon evidence suggests that first began in the 11th-12th century and the second took place in the 16th-17th century. Burial during the early period was extremely intensive: in addition to the burials, masses of disarticulated human bones were recovered.

CIRCUMSTANCES AND PROGRESS OF EXCAVATION

Early in March 1989 building work at the Highland and Island Development Board factory site in John O'Groats disturbed a quantity of human bones. The examination of the site by the Regional Archaeologist revealed not only a large quantity of human bones, but also prehistoric pottery and flint implements. In the face of continuing building activity Archaeology Projects Glasgow was asked to conduct a rescue excavation under the sponsorship of Historic Buildings and Monuments, Scotland. In late May excavations were carried out for two weeks.

The investigation concentrated on an area 6x5m on the western edge of the development site where the densest concentration of bones had been discovered. It was an area where damage by the contractors had been minimised and where a slight mound suggested buried structures. It was not possible, therefore, to determine the original extent of the archaeological features because the stripping of topsoil and levelling of the ground for building had removed all superficial deposits elsewhere on the development site.

Immediately below the turf, still within the topsoil, a profusion of human bones were discovered. These bones were not deposited in any particular order and were very broken Up. Fragments of 2242 bones were recovered which represent the scattered and broken remains from a cemetery which had been disturbed by later burials and agricultural activity. An estimate of the minimum numbers of individuals suggests that as many as 71 adults and 13 children may be represented by the scattered bones. By careful cleaning it was possible to distinguish intact skeletons of the final burials among the random bones. In fact two periods of burial were detected.

Very close to the surface, apparently representing a cemetery were portions of four articulated burials. These extended inhumations were laid out with their heads approximately to the west and feet to the east. Because these burials were so near to the surface they had suffered considerable damage and were poorly preserved. No grave goods or artefacts were observed.

Clearing the site of the four burials and the jumbled bones revealed an extensive area of flagstone paving made up of both quarried flags and waterworn slabs collected from the shore. In one place it was clear that the slabs had been removed to allow burials to be made below the level of the slabs. There were two burials inserted thus. One lay directly on top of the other, and the second burial substantially disturbed the first. Only the articulated leg and arm bones remained in position to indicate the presence of the earlier burial. Again there were no artefacts firmly associated with the burials. Their disposition - extended with heads to the east - suggests a different burial rite. Because they were buried deeper these two were thought to be earlier than the four with their heads to the west, but the radiocarbon age estimates indicate they are younger (see below p. 35).

The slabs certainly pre-date all the burials. It is

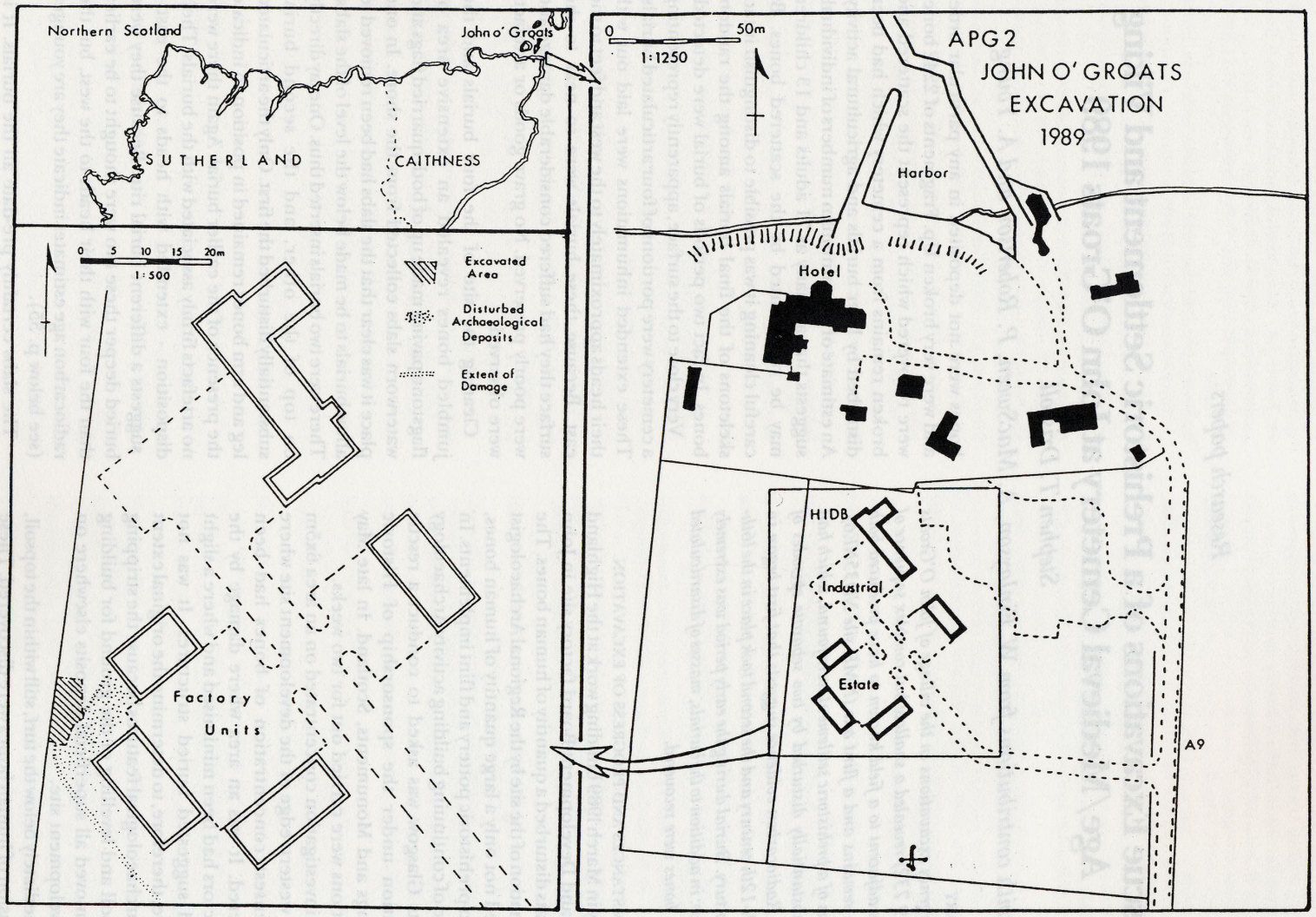

FIG. 1. Location map.

presumed that they represent structures within or near to a settlement. An insufficient area was examined to allow for any further interpretation. No clear indications of building plans were seen. Between the flagstones and below them three types of prehistoric pottery sherds and numerous flint flakes were found. The pottery includes a local Bronze Age type and both Early and Late Iron Age types. Most of the flint flakes were waste flakes, but a few actual tools were recovered. There was in fact a considerable depth (in places 0.5 metres) of soil below the slabs. This depth of soil containing prehistoric pottery indicates a long history of settlement in John O'Groats.

DESCRIPTION OF DEPOSITS BY PHASE

Three distinct phases of activity were distinguished. The earliest, Phase I, consists of settlement remains which begin in the Iron Age and may continue until the Norse period. Phase II, describes a cemetery, which includes at least two episodes of human burial. It dates to the medieval period. Phase III describes various modern disturbances, mostly of an agricultural nature.

Phase I - prehistoric settlement

The major features associated with the settlement are a deep accumulation of anthropogenic soils and a substantial paving of stone flags and flat boulders. This paving provides a distinct stratigraphic division between the early accumulation of occupation deposits and the later phase of burial. Although it is possible to establish a sequence of settlement activity, beginning with the development of humanly altered soils and capped by the paving, there is no way of establishing a tight chronology for this development. For the sake of clarity, the four episodes within phase I are distinguished thus: Ia - Id.

The natural subsoil of the site derived from weathered red sandstone. Pockets of the clean leached sand survived in places between the archaeological deposits and the rock. Between the natural soil and the stone paving was an accumulation of 0.40-0.50m of dark brown soils containing prehistoric artefacts. These deposits were virtually structureless and it was difficult to distinguish precise changes in the soils on the basis of colour or texture. The conditions of preservation in these layers were not good. Very few bones survived and most of these were decayed teeth (see below pp. 35-6).

Few clear features or layers were distinguished amongst the earliest, Phase Ia, deposits. The most substantial early feature was a large shallow-sided pit which was only partially contained within the excavated area. Originally it may have been 2.5m in diameter with a depth of 0.35m. The fill showed no signs of silting and was not readily distinguished from the layer which sealed it. This sealing layer was a silty black soil with a high organic component which was observed elsewhere directly overlying the bedrock. There can be little doubt that this silty layer is of human origin: it contained 20 flints, the second highest concentration on the site.

Phase Ib deposits, located above the Ia silty layer, were more extensive and contained a higher proportion of sand and stones. Major components of this build up are dark brown sandy loams whose thickness varied between 0.15-0.20m. They covered the entire area investigated. Interspersed amongst this build up were lenses of charcoal and ash, but nothing so coherent as a hearth. The Phase Ib layers contained only scant amounts of prehistoric pottery and flint.

The Ib layers were sealed by two similar deposits in Phase Ic. Both Ic deposits were medium brown sandyloam with traces of ash and were distinguished only by their stone content. The earlier contained copious amounts of water-worn stones, while the upper contained mostly angular stones. Together they were approximately 0.20m deep and preserved scant structural features. They produced pottery, flint and animal bone in small quantities.

The Ic features were unimpressive and may have been truncated by later activity. They include a single possible posthole represented by a shallow straight-sided depression (0.26x0.06m) and a shallow, narrow linear ditch which ran in a relatively straightline (4.2m) across the width of the excavated area. It had an average width of 0.5m and a maximum width of 0.08m with a maximum depth of O.O5m.

The paving stones which are characteristic of the final prehistoric episode, Phase Id, were bedded in an accumulation of black silty loam, which occupied much the same area as the stone paving itself. This matrix in which the paving slabs were embedded, was virtually identical to the soil immediately above the flags, which was heavily disturbed by the phase II burials. Both the black silt loams around and below the slabs seem to represent occupation debris. They yielded the largest concentration of flints and potsherds recovered from phase I.

The Id paving covered much of the area which was excavated (Fig. 2) . The most impressive paving was constructed of sandstone slabs and large, flat

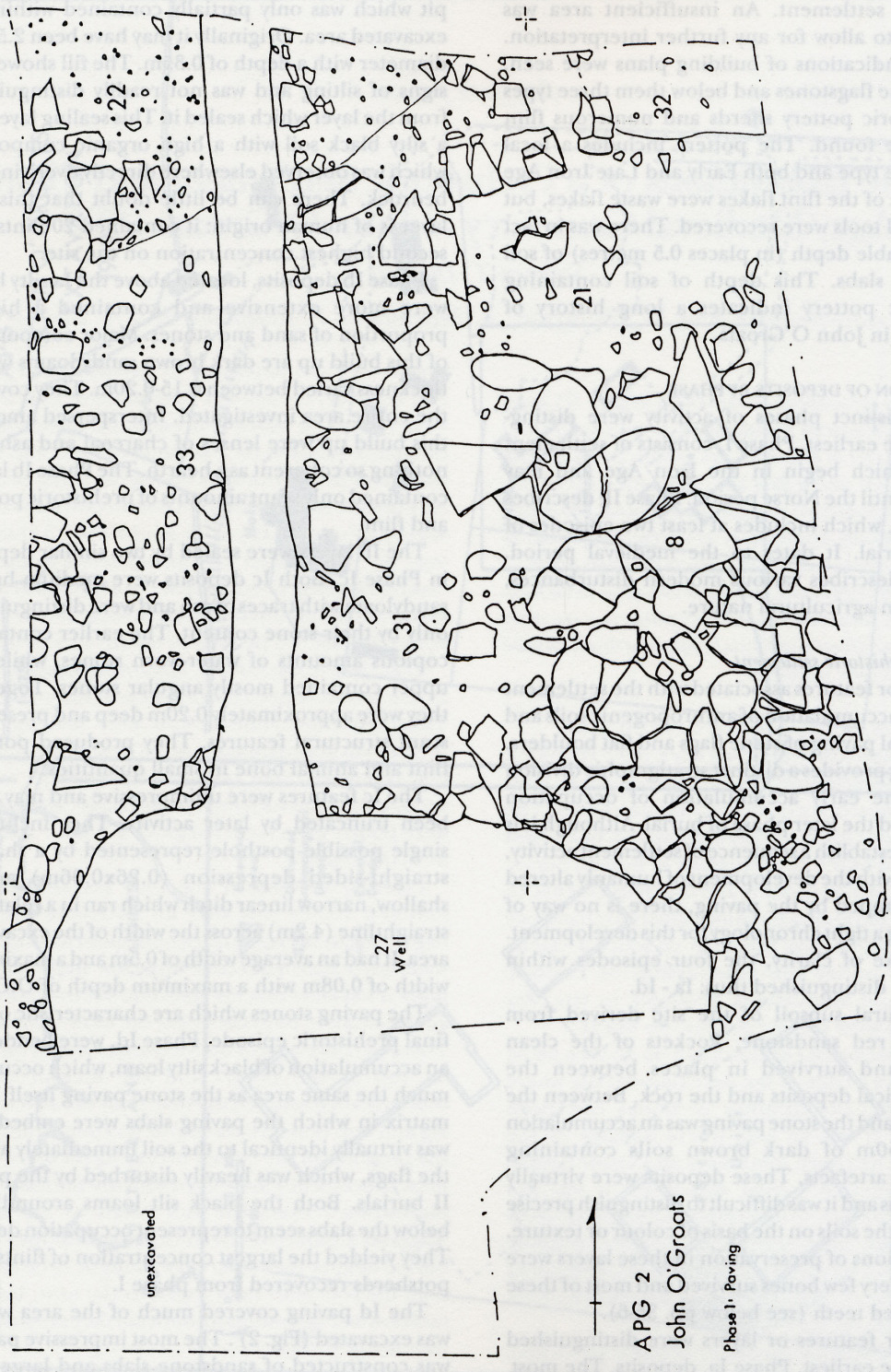

FIG. 2. Plan of Phase I paving.

water-worn boulders, which had been laid into a tightly-jointed, level surface. The largest of these paving slabs was 0.42 by 0.22m and others approached this scale. The slab paving was confined to the east half of the trench, but it retained no clear west edge. The original extent of the paving is thus unclear. However, it appears to have been laid in the area where human activity had earlier led to the formation of the silty deposits, which formed bedding material. Elsewhere at this level a small area of gravel metalling appears to be contemporary with the flagging. Unfortunately any trace of the activity which took place on this paved surface was substantially disturbed by the Phase II burials, which in places even penetrated the paving.

The Phase I artefactual assemblage

Phase I finds included pottery, flint and animal bone. Pre-modern pottery was discovered at all levels on the site but, for reasons which are outlined below, it seems likely that most, if not all, derives from this initial settlement phase.

Ann MacSween (Artefact Research Unit, National Museum of Scotland) has analysed the assemblage of 50 sherds of prehistoric/early medieval pottery. She identified sherds from 13 different vessels, which includes a single sherd from a Late Bronze Age vessel, 31 sherds from four Early Iron Age ('broch type') vessels, 13 sherds from six Late Iron Age ('Pictish') vessels, and 3 sherds from two Norse period vessels.

The detailed pottery catalogue and report are to be found on fiche (p. M4); the significant points about the pottery may be summarised as follows. All are local products. The single rim sherd from a pot with a double cordon can be paralleled in Late Bronze Age context in northern Scotland. Here it may be residual. The four Iron Age vessels were all undecorated, plain rimmed forms with coarse tempering. No profile could be reconstructed: even the vessel represented by 27 sherds was too incomplete. However the number of EIA sherds (25 from secure contexts) scattered amongst the Id deposits and contexts indicates disturbance of the parent deposits by both the construction of the paving and by the Phase II cemetery. The 15 sherds (6 vessels) of Late Iron Age date were identified by their beaded and flattened rimforms and sand fabric. Similar forms and fabrics are present in fifth century AD contexts at Pool, Sandy. Here they are confined to the matrix of the paving and to later disturbed levels. The two grass-tempered Norse vessels (3 sherds) were found in the disturbed levels of the Phase II cemetery.

Flint likewise was found throughout the site, but it was concentrated in the first phase. The lithic assemblage was analysed by William Finlayson (Artefact Research Unit, National Museum of Scotland). The full report is to be found on fiche (p. M10). The basic conclusion of the report is that the raw material and stoneworking technology were comparable to those employed at Pool, Sanday during the Neolithic and Bronze Ages. Unfortunately this assemblage is too small (93 pieces) and too poorly defined to provide accurate chronological information. The contextual circumstances do not allow us to tell whether it is Bronze Age material in a secondary context or genuine Iron Age flint working.

Very little animal bone (51 fragments) was recovered from settlement contexts because of the acid soil conditions. With a few exceptions the only bones to survive were teeth or slivers of burnt bone, and in many cases the teeth were in a very poor condition. From these contexts only cattle and deer were positively identified (by the author and Paula Robertson), but seal too may be present. No shell was observed in these contexts (see fiche p. M16).

Interpretation of Phase I settlement sequence

Because no coherent plans of settlement suuctures were recovered, only broad suggestions may be made about the nature of the different activities and the chronology of the Phase I deposits. The silty organic soils containing flints of Ia would appear to represent genuine settlement activity in the immediate vicinity. The presence of EIA pottery suggests a date in the first millennium BC, while the flint hints at earlier activity still. The dark brown sandy loams of episodes Ib and Ic certainly are indicative of less intensive activity in the area. Ib may indicate local abandonment or marginalisation, while Ic seems to contain evidence of renewed occupation on a sparse scale. This notion of reuse is supported by the presence of dug features and increased quantities of flint and pottery. If Ic may have been marginal to a settlement, the elcments of Id are unmistakably the floor of a building or courtyard. The contemporary occupation debris from the Id structures was seriously disturbed by the cemetery.

The dating of these phases rests entirely on the pottery sequence, because there was insufficient material suitable for radiocarbon dating. Despite the single BA sherd and the inconclusive chronological evidence of the flint assemblage, there does

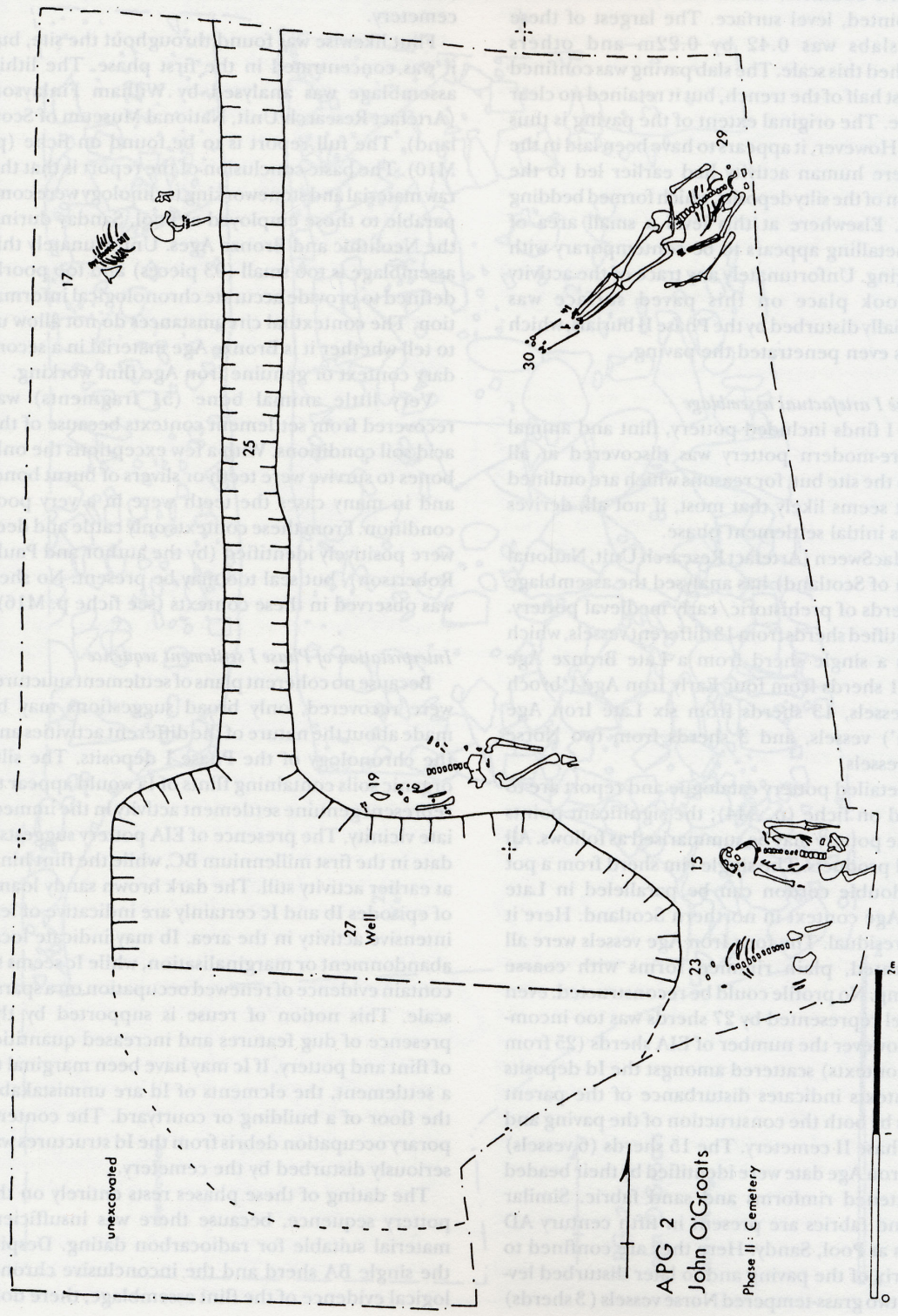

FIG. 3. Plan of Phase II cemetery.

not appear to be sufficient evidence to date the site's origins to the Bronze Age. Pottery of the EIA was recovered from a large number of contexts, but perhaps significantly LIA pot (2 sherds) was seen in an early (Ib) context. However, the quantity of EIA pottery (including 27 sherds from one vessel) makes it likely that this sequence began no later than the EIA. The relatively inactive phase Ib, was followed in the LIA by increased activity in Ic. LIA pottery was found below and among the slab paving of Id. It was also found in the disturbed levels above it. Although a LIA date seems most likely for the slabs, a Norse date cannot be ruled out. All the Norse pot was suatified above the slabs.

Phase II - burial ground

Two periods of burial may be distinguished on the basis of grave orientation (Fig. 3). The four extended inhumations (15, 17, 19, 23) with their heads oriented either due west or south-west are the earlier. They occur very close to the surface inter-mingled with the latest pre-modern deposit. The two extended inhumations with their heads to the north-east (29 & 30) were buried deeper but are, in fact, younger. In no case was it possible to identify grave cuts or the presence of any grave furniture or offerings for these burials. An area of the Id stone paving appears to have been removed during the burial of the two bodies with their heads to the east, because they lie below the level of the surrounding undisturbed paving where as the earlier grave in some cases rest directly on the slabs. The area of paving which appears to have been cleared for the burial was rectangular approximately 0.55m by 2.0m. The bodies were laid diagonally in this space. The earlier of the two was (30) which is represented only by feet bones, the fibulae and the left arm. The rest of the skeleton was evidently disturbed when (29) was interred. Skeleton (29) occupied almost the exact position as its predecessor, only it was 0.20m further north-east. The matrix of medium brown loamy sand which surrounded both bodies contained a large quantity of human bones, some of which presumably derived originally from the disturbed burial (30).

This pattern of dense burial leading to displacement of bones also characterized the earlier burials and the layer which they occupied. This broadly defined layer (7), which lay immediately below the turf, was a dark brown sandy loam between 0.10m-0.25m thick. It contained copious amounts of human bone. Most of this bone was distributed in a random and jumbled fashion, but in one area it was clear that long bones and skulls had been collected together and stacked up. This stack of bones (16) may have been a ditch fill: it had linear arrangement which extended approximately 2.0m before disappearing into the section and was about 0.20m wide and high. Unfortunately, as with the burials, it was not possible to detect any ditch cut.

The layer of jumbled bones (7) was apparently cut by the late burials (29) and (30), but its relationship with the other earlier burials is unclear. The mass of bones appear to be broadly contemporaneous with the early graves and presumably are the product of continuous burial over several generations. As was stated no grave cuts were visible, so it is impossible to place them accurately within the history of the use of this area as a cemetery. The poor condition of the bones from the four early burials, (15, 17, 19 and 23), reflects both this vigorous funerary activity and more recent disturbances to which they were subject as a result of their shallow burial. Two skeletons (15 and 23) were in particularly poor condition because they were less than a spade's depth below the turf.

ANALYSIS AND DISCUSSION

There can be little doubt that the mass of jumbled bones is the product of continuous burial over a period of time which probably extended to centuries. The head to the west orientation of the four intact early burials would seem to indicate that this was a Christian cemetery. The orientation of the late skeletons with their heads to the east is the opposite of a conventional Christian burial rite, although why this should be the case is unclear. What can be noted is that sequential burial in the same grave argues against the orientation being the result of haphazard or casual enterrment.

Radiocarbon dating

Table 1

Dating Results and Calibration (from Stuiver et al 1987)

Context	*Lab Ref*	*Est. Age*	*Calibrated Age Range (I sigma) (cal age) AD*
Mass of Bone 16	GU-2652	1220±50 ad	1258 (1278) 1283
Burial 17	GU-2655	1020±90 ad	999 (1040,1095,1191, 1140, 1151) 1212
Burial 19	GU-2654	930±60 ad	980 (999) 1146
Burial 29	GU-2653	1670±5O ad	1520 (1642)1656

The calibrated radiocarbon dates from burials 17 & 19 focus on the 11th century, while the mass of

disarticulated bones have provided a central date in the 13th century. Despite the inherent statistical limitations of radiocarbon age estimates these dates seem to conform to the broad observation that pagan burial rites had been abandoned in Northern Scotland and the Isles by the 11th century. This further supports the historical arguments that the re-conversion of Orkney and Caithness was initiated by the conversion of the Earl of Orkney in the late 10th century and consolidated in the foundation of a bishopric in the mid-l2th century (Crawford 1987: 68-71, 80, 159-69). The dates further apparently support the suggestion that the cemetery was used for a span of two to three centuries. Moreover it would appear that this cemetery marks the approximate location of a chapel for John O'Groats at the close of the Viking Age.

Presumably a nearby chapel still marked the location of the graveyard when, several centuries later, the two late burials were made. The unconventional burial posture for the17th century, would appear to indicate that the dead belonged to some distinct social group or category, such as priests, foreigners, criminals or nonconformists.

Analysis of skeletal remains

Human bone was recovered from intact burials and from the largely structureless soil into which the burials had been inserted. In addition to the 880 fragments of bone from the identified burials, 2242 fragments of human bone were recovered (of which 330 were unstratified).

The loose bones were simply identified and analysed for minimum numbers of individuals. Because a large portion of the bone was unstratified (343 fragments) or came from structureless deposits (853), it was decided that detailed analysis of the sex, age and pathology of the skeletons was not worthwhile. The scattered human bones including stray bones within burials represent the remains of some 65 adults and 13 children/infants. A full catalogue of the bones exists on fiche (p. M15).

Attempts to age and sex the skeletons was only made for intact burials. In some cases the condition of the bone made identification of sex impossible. Precise aging was not attempted. The results are as follows:

Early burials:

23 - mature adult, possibly male,
19 - mature adult, male,
17 - mature adult, male,
15 - adult, sex unknown.

Late burials:

30 - adult, sex unknown,
29 - approximately 16 years, probably male.

Finds and Environmental Evidence

Approximately a third of the pre-modern pottery sherds and a few flints were recovered from contexts relating to the cemetery. With the exception of the Norse period pottery, all the material found in phase II contexts was comparable with that from phase I. Given the disruptive nature of burial it should be assumed that it all derives from the earlier settlement use of the site. Only three Norse period sherds were recovered from the whole site, none from phase I contexts. It may be that they are contemporary with the burials, however their find locations cannot lend any weight to this suggestion.

About 95 animal bone fragments can be attributed to these layers (see fiche p. M16) . The species identified include cattle, sheep/goat, horse, pig, possibly seal, dog, rodent, frog, various birds, bony fish and shellfish (primarally dog whelk). The condition of the phase II animal bone is much better than that recovered in the contexts associated with the phase I prehistoric settlement.

Phase III - modern activities

Several features attested to activities which had disturbed the archaeological deposits in the not too distant past. The most generalised of these was probably cultivation, which would account for the erosion of the less deeply buried skeletons, in particular 15 and 23. The dominant modern feature on the site was an incomplete well and associated pipe trench. The well was represented by an irregular straight-sided pit roughly 1.7m in diameter, which was not fully excavated. A straight trench led from the north side of the well was 0.40m-0.25m wide and 0.60m deep. Local informants told of the digging of a well for the John O'Groats Hotel in the l930s. Not surprisingly the project was abandoned after the discovery of many human bones. The digging of the well and trench clearly disturbed burials 17 and 19 and certainly removed some of the prehistoric paving 8. It seems most likely that the upcast from the well accounts for the slight mound and stray slabs noted as surface features at the start of the excavation.

CONCLUSIONS

Two things only may be said with certainty about the area examined. First it is clear that for a period of many centuries it was the site of a settlement. The

nature, extent and duration of these episodes of settlement could not be determined from the limited area of excavation. Second, that at the close of the Viking Age the area was set aside for use as a burial ground and presumably chapel site. The active period of use of this cemetery seems to span the 11th to 13th centuries. Although the late burials do not demonstrate the continuous use of the cemetery and chapel sites, they attest to an awareness of this location as a place of burial in the 17th century.

Finally, it remains a source of some surprise that deposits of such depth and complexity survive in such a flat and featureless topographic setting. Because there are no surface indications the full extent of these deposits remains entirely unknown; they certainly extended beyond the trench on the three sides where they were not disturbed by the building work.

ACKNOWLEDGEMENTS

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